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## **AMENDMENTS TO THE CLAIMS**

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Currently amended) A compound of formula I:

T

or a pharmaceutically acceptable salt thereof, wherein:

 $R^1$  is selected from hydrogen, CONH<sub>2</sub>,  $T_{(n)}$ -R, or  $T_{(n)}$ -Ar<sup>1</sup>;

R is an aliphatic or substituted aliphatic group;

n is zero or one;

T is C(=O), CO<sub>2</sub>, CONH, S(O)<sub>2</sub>, S(O)<sub>2</sub>NH, COCH<sub>2</sub> or CH<sub>2</sub>;

R<sup>2</sup> is selected from hydrogen, -R, -CH<sub>2</sub>OR, -CH<sub>2</sub>OH, -CH=O, -CH<sub>2</sub>SR, -CH<sub>2</sub>S(O)<sub>2</sub>R, -CH<sub>2</sub>(C=O)R, -CH<sub>2</sub>CO<sub>2</sub>R, -CH<sub>2</sub>CO<sub>2</sub>H, -CH<sub>2</sub>CN, -CH<sub>2</sub>NHR, -CH<sub>2</sub>N(R)<sub>2</sub>, -CH=N-OR, -CH=NNHR, -CH=NN(R)<sub>2</sub>, -CH=NNHCOR, -CH=NNHCO<sub>2</sub>R, -CH=NNHSO<sub>2</sub>R, -aryl, -CH<sub>2</sub>(aryl), -CH<sub>2</sub>NH<sub>2</sub>, -CH<sub>2</sub>NHCOR, -CH<sub>2</sub>NHCONHR, -CH<sub>2</sub>NHCON(R)<sub>2</sub>, -CH<sub>2</sub>NRCOR, -CH<sub>2</sub>NHCO<sub>2</sub>R, -CH<sub>2</sub>CONHR, -CH<sub>2</sub>CON(R)<sub>2</sub>, -CH<sub>2</sub>SO<sub>2</sub>NH<sub>2</sub>, -CH<sub>2</sub>(heterocyclyl), or -(heterocyclyl);

R<sup>3</sup> is selected from hydrogen, -R, hydroxyalkyl, alkoxyalkyl, alkylthioalkyl, aminoalkyl, alkylaminoalkyl, dialkylaminoalkyl, heterocyclyl, heterocyclylalkyl, aryl, aralkyl, or aryloxyalkyl;

G is hydrogen or C<sub>1.3</sub> alkyl;

wherein the H of Q-NH is optionally replaced by R, COR, S(O)<sub>2</sub>R, or CO<sub>2</sub>R; A is N;

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- Ar<sup>1</sup> is aryl, substituted aryl, heterocyclyl or substituted heterocyclyl, wherein Ar<sup>1</sup> is optionally fused to a partially unsaturated or fully unsaturated five to seven membered ring containing zero to three heteroatoms;
- wherein each substitutable carbon atom in Ar<sup>1</sup>, including the fused ring when present, is optionally and independently substituted by halo, R, OR, SR, OH, NO<sub>2</sub>, CN, NH<sub>2</sub>, NHR, N(R)<sub>2</sub>, NHCOR, NHCONHR, NHCON(R)<sub>2</sub>, NRCOR, NHCO<sub>2</sub>R, CO<sub>2</sub>R, CO<sub>2</sub>H, COR, CONHR, CON(R)<sub>2</sub>, S(O)<sub>2</sub>R, SONH<sub>2</sub>, S(O)R, SO<sub>2</sub>NHR, or NHS(O)<sub>2</sub>R, and wherein each saturated carbon in the fused ring is further optionally and independently substituted by =O, =S, =NNHR, =NNR<sub>2</sub>, =N-OR, =NNHCOR, =NNHCO<sub>2</sub>R, =NNHSO<sub>2</sub>R, or =NR; and
- wherein each substitutable nitrogen atom in Ar<sup>1</sup> is optionally substituted by R, COR, S(O)<sub>2</sub>R, or CO<sub>2</sub>R; [[,]]
- wherein an unsaturated carbon atom of an aryl group is optionally and independently substituted with a halogen, -R, -OR, -OH, -SH, -SR, acyloxy, phenyl (Ph), substituted Ph, -OPh, substituted -OPh, -NO<sub>2</sub>, -CN, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NHCONHR, -NHCON(R)<sub>2</sub>, -NRCOR, -NHCO<sub>2</sub>R, -CO<sub>2</sub>R, -CO<sub>2</sub>H, -COR, -CONHR, -CON(R)<sub>2</sub>, -S(O)<sub>2</sub>R, -SONH<sub>2</sub>, -S(O)<sub>R</sub>, -SO<sub>2</sub>NHR or -NHS(O)<sub>2</sub>R;
- wherein a saturated carbon of an aliphatic group or non-aromatic heterocyclic ring is optionally and independently substituted with a halogen, -R, -OR, -OH, -SH, -SR, acyloxy, Ph, substituted Ph, -OPh, substituted -OPh, -NO<sub>2</sub>, -CN, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NHCONHR, -NHCON(R)<sub>2</sub>, -NRCOR, -NHCO<sub>2</sub>R, -CO<sub>2</sub>R, -CO<sub>2</sub>H, -COR, -CONHR, -CON(R)<sub>2</sub>, -S(O)<sub>2</sub>R, -SONH<sub>2</sub>, -S(O)<sub>2</sub>R, -SO<sub>2</sub>NHR, -NHS(O)<sub>2</sub>R, =O, =S, =NNHR, =NNR<sub>2</sub>, =N-OR, =NNHCOR, =NNHCO<sub>2</sub>R, =NNHSO<sub>2</sub>R or =NR; and
- wherein a substitutable nitrogen on an aromatic or non-aromatic heterocyclic ring is

  optionally and independently substituted with R, COR, S(O)<sub>2</sub>R or CO<sub>2</sub>R.

  provided that when G is hydrogen, and R<sup>3</sup> is optionally substituted phenyl, then R<sup>3</sup> is not hydrogen.

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- 2. (Currently amended) The compound of claim 1, wherein compound variables are selected from one or more of, or all of, the following groups:
  - (a) R<sup>1</sup> is selected from hydrogen, T<sub>(n)</sub>-R, or T<sub>(n)</sub>-Ar<sup>1</sup>;
- (b) R<sup>2</sup> is selected from hydrogen, -R, -CH<sub>2</sub>OR, CH<sub>2</sub>OH, CH<sub>2</sub>(heterocyclyl), -CH<sub>2</sub>(substituted heterocyclyl), -(heterocyclyl), or -(substituted heterocyclyl);
- (c) R<sup>3</sup> is selected from -R, heterocyclyl, heterocyclylalkyl, aryl, or aralkyl; and/or [[:]]
  - (d) G is hydrogen or methyl.
  - 3. (Currently amended) The compound of claim 2, wherein:
  - (a) R<sup>1</sup> is selected from hydrogen, T<sub>(n)</sub>-R, or T<sub>(n)</sub>-Ar<sup>1</sup>;
- (b) R² is selected from hydrogen, -R, -CH₂OR, CH₂OH, -CH₂(aryl),
   -CH₂(heterocyclyl), -CH₂(substituted heterocyclyl), -(heterocyclyl), or -(substituted heterocyclyl);
- (c) R<sup>3</sup> is selected from -R, heterocyclyl, heterocyclylalkyl, aryl, or aralkyl; and [[:]]
  - (d) G is hydrogen or methyl.
- 4. (Currently amended) The compound of claim 3, wherein G is hydrogen or methyl;  $R^1$  is selected from phenyl, cyclohexyl, pyridyl, naphthyl, or quinolinyl;  $R^2$  is selected from hydrogen, methyl, alkoxymethyl, benzyloxymethyl, or heterocyclylmethyl; and  $R^3$  is phenyl or benzyl; wherein each  $R^1$ - $R^3$  is optionally substituted.
- 5. (Currently amended) The compound of claim 3, wherein G is hydrogen or methyl; R<sup>1</sup> is phenyl or cyclohexyl; R<sup>2</sup> is methoxymethyl, methoxyethoxymethyl, ethoxymethyl, piperidin-1-ylmethyl, morpholin-4-ylmethyl, or tetrahydrofuran-3-ylmethyl; and R<sup>3</sup> is phenyl or benzyl; wherein each R<sup>1</sup>-R<sup>3</sup> is optionally substituted.
- 6. (Previously amended) The compound of claim 1, the compound being selected from:

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No.	G	R <sup>1</sup>	R <sup>2</sup>	$\mathbb{R}^3$
U-1	CH <sub>3</sub>	Phenyl	Н	Ph
II-2	CH <sub>3</sub>	4-methoxy-phenyl	н	Ph
П-3	CH <sub>3</sub>	3,4-dimethoxy-phenyl	н	Ph
11-4	CH <sub>3</sub>	3,5-dimethoxy-phenyl	Н	Ph
II-5	CH <sub>3</sub>	4-cyano-phenyl	Н	Ph
П-6	CH₃	3-fluoro-phenyl	Н	Ph
π-7	CH₃	4-fluoro-phenyl	н	Ph
П-8	CH <sub>3</sub>	4-COCH <sub>3</sub> -phenyl	Н	Ph
П-9	CH <sub>3</sub>	4-CONH <sub>2</sub> -phenyl	н	Ph
П-10	CH <sub>3</sub>	4-SCH <sub>3</sub> -phenyl	Н	Ph
П-11	CH <sub>3</sub>	3-OCH <sub>3</sub> -phenyl	н	Ph
П-12	CH <sub>3</sub>	3,4,5-trimethoxy-phenyl	Н	Ph
П-13	CH₃	4-CO <sub>2</sub> CH <sub>3</sub> -phenyl	Н	Ph
II-14	CH <sub>3</sub>	4-SO <sub>2</sub> CH <sub>3</sub> -phenyl	Н	Ph
II-15	CH <sub>3</sub>	4-CO <sub>2</sub> CH <sub>3</sub> -phenyl	H	Ph
П-16	CH <sub>3</sub>	4-N(CH <sub>3</sub> ) <sub>2</sub> -phenyl	H	Ph
П-17	CH <sub>3</sub>	3-NO <sub>2</sub> -phenyl	H	Ph
П-18	CH <sub>3</sub>	3-NHCOCH <sub>3</sub> -phenyl	Н	Ph
II-19	CH <sub>3</sub>	3-NH <sub>2</sub> -phenyl	Н	Ph
II-20	CH₃	4-NO <sub>2</sub> -phenyl	н	· Ph
II-21	CH₃	3-(CH <sub>2</sub> CH <sub>2</sub> CO <sub>2</sub> H)-phenyl	н	Ph
II-22	CH <sub>3</sub>	3-(CH <sub>2</sub> CO <sub>2</sub> H)-phenyl	Н	Ph
П-23	CH <sub>3</sub>	3-CH <sub>2</sub> OH-phenyl	Н	4-CH <sub>3</sub> -Ph
II-24	CH <sub>3</sub>	Phenyl	Н	4-OMe-phenyl
II-25	CH <sub>3</sub>	4-methoxy-phenyl	Н	4-OMe-phenyl
II-26	CH <sub>3</sub>	3,4-dimethoxy-phenyl	Н	4-Cl-Ph
II-27	CH <sub>3</sub>	3,5-dimethoxy-phenyl	Н	3,4-Cl <sub>2</sub> -Ph
II-28	CH <sub>3</sub>	4-cyano-phenyl	H	4-F-Ph
П-29	CH₃	3-fluoro-phenyl	H	4-OMe-phenyl
N-30	CH <sub>3</sub>	4-fluoro-phenyl	H	2,5-Cl <sub>2</sub> -Ph [[Ph]]
П-31	CH <sub>3</sub>	4-COCH <sub>3</sub> -phenyl	H	2,4-F <sub>2</sub> -Ph
П-32	CH <sub>3</sub>	4-CONH <sub>2</sub> -phenyl	H	4-NO <sub>2</sub> -Ph
П-33	CH <sub>3</sub>	4-SCH <sub>3</sub> -phenyl	H	3,5-Cl <sub>2</sub> -Ph
П-34	CH <sub>3</sub>	3-OCH <sub>3</sub> -phenyl	H	3-Cl-Ph
П-35	CH <sub>3</sub>	3,4,5-trimethoxy-phenyl	н	4-OMe-phenyl
П-36	CH <sub>3</sub>	4-CH <sub>3</sub> -phenyl	H	3-OBn-Ph
Ц-37	CH₃	cyclohexyl	H	4-OMe-phenyl
II-38	CH <sub>3</sub>	cyclohexyl	Н	4-OMe-phenyl
II-39	CH <sub>3</sub>	cyclohexyl	H	4-Cl-Ph
II-40	СН3	cyclohexyl	н	3,4-Cl <sub>2</sub> -Ph
II-41	СН3	cyclohexyl	H	4-F-Ph
П-42	СН₃	cyclohexyl	Н	4-OMe-phenyl

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No.	G	$\mathbb{R}^1$	R <sup>2</sup>	$\mathbb{R}^3$
II-43	CH <sub>3</sub>	cyclohexyl	H	2,5-Cl <sub>2</sub> -Ph
Π-44	CH <sub>3</sub>	cyclohexyl	H	2,4-F <sub>2</sub> -Ph
П-45	CH <sub>3</sub>	cyclohexyl	Н	4-NO <sub>2</sub> -Ph
П-46	CH <sub>3</sub>	cyclohexyl	H	3,5-Cl <sub>2</sub> -Ph
<b>II-47</b>	CH <sub>3</sub>	cyclohexyl	Н	3-Cl-Ph
П-48	CH₃	cyclohexyl	Н	4-OMe-phenyl
Π-49	CH <sub>3</sub>	cyclohexyl	Н	3-OBn-Ph
II-50	CH <sub>3</sub>	cyclohexyl	H.	-CH <sub>2</sub> Ph
П-51	CH <sub>3</sub>	cyclohexyl	Н	Ph
II-52	CH <sub>3</sub>	Phenyl	H	4-OMe-phenyl
Ц-53	H	4-methoxy-phenyl	H	4-OMe-phenyl
П-54	H	3,4-dimethoxy-phenyl	H	4-Cl-Ph
II-55	H	3,5-dimethoxy-phenyl	H	3,4-Cl <sub>2</sub> -Ph
II-56	Ħ	4-cyano-phenyl	Н	4-F-Ph
П-57	H	3-fluoro-phenyl	н	4-OMe-phenyl
П-58	H	4-fluoro-phenyl	Н	2,5-Cl <sub>2</sub> -PhPh
П-59	H	4-COCH <sub>3</sub> -phenyl	H	2,4-F <sub>2</sub> -Ph
П-60	Н	4-CONH <sub>2</sub> -phenyl	H	4-NO <sub>2</sub> -Ph
П-61	Н	4-SCH <sub>3</sub> -phenyl	H	3,5-Cl <sub>2</sub> -Ph
Д-62	H	3-OCH <sub>3</sub> -phenyl	H	3-Cl-Ph
II-63	H	3,4,5-trimethoxy-phenyl	H	4-OMe-phenyl
II-64	H	4-CH <sub>3</sub> -phenyl	H	3-OBn-Ph
II-65	H	cyclohexyl	H	benzyl
П-66	Н	cyclohexyl	Н	4-OMe-phenyl
II-67	H	cyclohexyl	Н	phenyl
II-68	H	cyclohexyl	Н	3,4-Cl <sub>2</sub> -Ph
П-69	H	cyclohexyl	Н	2,4-Cl <sub>2</sub> -Ph
II-70	H	cyclohexyl	Н	4-OMe-phenyl
<b>U-71</b>	Н	cyclohexyl	H	2,5-Cl <sub>2</sub> -Ph
II-72	н	cyclohexyl	Н	2,4-F <sub>2</sub> -Ph
П-73	H	cyclohexyl	н	4-NO <sub>2</sub> -Ph
П-74	H	cyclohexyl	н	3,5-Cl <sub>2</sub> -Ph
II-75	H	cyclohexyl	Н	3-Cl-Ph
Д-76	H	Phenyl	Н	4-OMe-phenyl
П-78	CH <sub>3</sub>	4-methoxy-phenyl	Н	-CH <sub>2</sub> Ph
П-79	CH <sub>3</sub>	3,4-dimethoxy-phenyl	H	-CH <sub>2</sub> Ph
П-80	CH <sub>3</sub>	3,5-dimethoxy-phenyl	H	-CH <sub>2</sub> Ph
П-81	CH <sub>3</sub>	4-cyano-phenyl	H	-CH <sub>2</sub> Ph
П-82	CH <sub>3</sub>	3-fluoro-phenyl	H	-CH <sub>2</sub> Ph
II-83	CH <sub>3</sub>	3,4,5-trimethoxy-phenyl	H	-CH <sub>2</sub> Ph
<u>П-84</u>	CH <sub>3</sub>	3-pyridyl	H	Ph
<u>п-85</u>	CH <sub>3</sub>	4-methoxy-pyrid-3-yl	H	Ph

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No.	G	$\mathbb{R}^1$	R <sup>2</sup>	R <sup>3</sup>
П-86	CH <sub>3</sub>	2-naphthyl	H ′	Ph
II-87	CH <sub>3</sub>	Isoquinolin-4-yl	Н	Ph
П-88	CH <sub>3</sub>	6-methoxy-naphthalen-2-yl	H	Ph
11-89	CH₃	Indan-1-on-5-yl	Н	Ph
II-90	CH <sub>3</sub>	2-methyl-quinolin-6-yl	н	Ph
II-91	CH <sub>3</sub>	4-methoxy-phenyl	CH <sub>3</sub>	Ph
II-92	CH <sub>3</sub>	3,4-dimethoxy-phenyl	CH <sub>3</sub>	Ph
П-93	CH₃	3,5-dimethoxy-phenyl	CH <sub>3</sub>	4-OMe-phenyl
Π-94	CH <sub>3</sub>	cyclohexyl	CH <sub>3</sub>	4-QMe-phenyl
П-95	CH <sub>3</sub>	cyclohexyl	CH <sub>3</sub>	4-Cl-phenyl
П-96	CH <sub>3</sub>	cyclohexyl	CH <sub>3</sub>	Ph
II-97	CH <sub>3</sub>	4-methoxy-phenyl	CH <sub>3</sub>	-CH <sub>2</sub> Ph
П-98	CH₃	2-methyl-quinolin-6-yl	CH <sub>3</sub>	-CH <sub>2</sub> Ph
II-99	CH <sub>3</sub>	2-methyl-quinolin-6-yl	CH <sub>3</sub>	-CH <sub>2</sub> Ph
П-100	H	4-F-phenyl	CH <sub>3</sub>	Ph
П-101	H	4-Cl-phenyl	CH <sub>3</sub>	Ph
II-102	H	4-NO <sub>2</sub> -phenyl	CH <sub>3</sub>	Ph
II-103	H	cyclohexyl	CH <sub>3</sub>	2,6-difluoro-phenyl
П-104	H	cyclohexyl	CH <sub>3</sub>	3,5-dichloro-phenyl
II-105	H	cyclohexyl	CH <sub>3</sub>	2,4-dichloro-phenyl
П-106	H	cyclohexyl	CH₃	Ph
II-107	н	3-CI-phenyl	CH <sub>3</sub>	Ph
II-108	Н	3-benzyloxy-phenyl	CH₃	Ph
П-109	Н	phenyl	CH <sub>3</sub>	2,4-difluoro-phenyl
П-110	CH <sub>3</sub>	3-Cl-phenyl	H	phenyl
П-111	H	phenyl	H	2,4-difluoro-phenyl
Ц-112	H	cyclohexyl	H	phenyl
<b>U-113</b>	H	3-Br-phenyl	CH <sub>3</sub>	phenyl
П-114	H	3-I-phenyl	CH <sub>3</sub>	phenyl
П-115	H	2-chloropyridin-5-yl	CH₃	phenyl
П-116	H	phenyl	CH <sub>3</sub>	pyridin-2-yl
П-117	Н	4-F-phenyl	CH <sub>3</sub>	pyridin-2-yl
II-118	H	4-Cl-phenyl	CH <sub>3</sub>	pyridin-2-yl
II-119	H	3-Cl-phenyl	CH <sub>3</sub>	pyridin-2-yl
П-120	H	4-NO <sub>2</sub> -phenyl	CH <sub>3</sub>	pyridin-2-yl
П-121	H	3-(benzyloxy)-phenyl	CH₃	pyridin-2-yl
II-122	Н	2,6-difluorophenyl	CH <sub>3</sub>	phenyl
Д-123	Н	phenyl	CH <sub>3</sub>	3-Cl-phenyl
П-124	H	4-F-phenyl	CH <sub>3</sub>	3-Cl-phenyl
II-125	H	4-Cl-phenyl	CH₃	3-Cl-phenyl
П-126	H	3-Cl-phenyl	CH <sub>3</sub>	3-Cl-phenyl
II-127	Н	4-NO <sub>2</sub> -phenyl	CH <sub>3</sub>	3-Cl-phenyl

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No.	G	R <sup>1</sup>	R <sup>2</sup>	$\mathbb{R}^3$
II-128	H	3-(benzyloxy)-phenyl	CH₃	3-Cl-phenyl
П-129	H	naphthalen-2-yl	CH <sub>3</sub>	phenyl
П-130	H	3,4-dimethoxyphenyl	CH <sub>3</sub>	phenyl
П-131	н	phenyl	CH₃	6-CH <sub>3</sub> -4-CF <sub>3</sub> - pyridin2-yl
П-132	Н	4-F-phenyl	CH <sub>3</sub>	6-CH <sub>3</sub> -4-CF <sub>3</sub> - pyridin2-yl
П-133	H	4-Cl-phenyl	CH <sub>3</sub>	6-CH <sub>3</sub> -4-CF <sub>3</sub> -pyridin2-yl
11-134	H	3-Cl-phenyl	CH <sub>3</sub>	6-CH <sub>3</sub> -4-CF <sub>3</sub> - pyridin2-yl
<b>M-135</b>	Н	4-NO <sub>2</sub> -phenyl	CH <sub>3</sub>	6-CH <sub>3</sub> -4-CF <sub>3</sub> - pyridin2-yl
П-136	H	3-(benzyloxy)-phenyl	CH <sub>3</sub>	6-CH <sub>3</sub> -4-CF <sub>3</sub> - pyridin2-yl
Ш-137	Н	3-F-phenyl	CH <sub>3</sub>	pyridin-2-yl
П-138	H	3-chloro-4-methoxyphenyl	CH <sub>3</sub>	pyridin-2-yl
П-139	H	naphthalen-2-yl	CH₃	pyridin-2-yl
П-140	H	benzimidazol-2-yl	CH <sub>3</sub>	pyridin-2-yl

## 7-16. (Canceled)

17. (Previously added) A composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier or diluent.

## 18-19. (Canceled)

- 20. (Currently amended) The compound of claim 1, wherein [[:]]  $R^3$  is an optionally substituted aryl or aralkyl.
- 21. (Previously added) The compound of claim 1, wherein  $R^3$  is an optionally substituted phenyl or benzyl.